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a filler material.

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- 1 8. The composition of claim 1 wherein said flexibilizing agent is selected from the  
2 group consisting of polysulfones, polyetherimide, polyamideimides, polyarylene ethers,  
3 polyesters, polyarylates, polycarbonates, polyurethanes, hydroxy-terminated polysulfone  
4 oligomers, 1,4-butane-diol diglycidyl ethers, neopentylglycol diglycidyl ether,  
5 cyclohexane dimethanol diglycidyl ether, trimethylol ethane triglycidyl ethers,  
6 dibromoneopentylglycol glycidyl ethers, propoxylated glycerol polyglycidyl ether,  
7 polypropylene glycol glycidyl ether, polyglycidyl ether of castor oil, dimer acid  
8 diglycidyl esters, resorcinol diglycidyl ether, epoxidized propylene glycol dioleates,  
9 epoxy esters, 1,2-tetradecane oxides, internally epoxidized 1,3-butadiene  
10 homopolymers, diglycidyl ether, glycidyl glycidate, bis(2,3-epoxy-2-methylpropyl)ether,  
11 polyglycoldiepoxides, E-caprolactone triol, copolymers of styrene, butyl rubber,  
12 neoprene, polysiloxanes, carboxyl terminated poly n-butylacrylates, maleic anhydride  
13 terminated rubbers, epoxy functionalized rubbers, fluoridized rubbers, and hydroxylated  
14 or carboxylated EPDM rubbers.

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- 1 13. The composition of claim 1, wherein said filler material comprises substantially  
2 spherical or spheroidal particles, each particle having a diameter of less than about 41  
3 microns.

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- 1 18. An electronic package comprising:  
2 a substrate having an upper surface;  
3 a semiconductor chip mounted on a portion of said upper surface of said  
4 substrate and electrically coupled to said substrate, said semiconductor chip having a  
5 bottom surface and at least one edge surface being substantially perpendicular to said  
6 bottom surface; and

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7 a material positioned on at least said portion of said upper surface of said  
8 substrate and against at least a portion of said at least one edge surface of said  
9 semiconductor chip, said material being an encapsulant composition which includes a  
10 resin material, a flexibilizing agent comprising about 1 percent to about 5 percent by  
11 weight of said composition, and a filler material.

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1 31. The electronic package of claim 18 wherein said flexibilizing agent is selected  
2 from the group consisting of polysulfones, polyetherimide, polyamideimides,  
3 polyarylene ethers, polyesters, polyarylates, polycarbonates, polyurethanes, hydroxy-  
4 terminated polysulfone oligomers, 1,4-butane-diol diglycidyl ethers, neopentylglycol  
5 diglycidyl ether, cyclohexane dimethanol diglycidyl ether, trimethylol ethane triglycidyl  
6 ethers, dibromoneopentylglycol glycidyl ethers, propoxylated glycerol polyglycidyl  
7 ether, polypropylene glycol glycidyl ether, polyglycidyl ether of castor oil, dimer acid  
8 diglycidyl esters, resorcinol diglycidyl ether, epoxidized propylene glycol dioleates,  
9 epoxy esters, 1,2-tetradecane oxides, internally epoxidized 1,3-butadiene  
10 homopolymers, diglycidyl ether, glycidyl glycidate, bis(2,3-epoxy-2-methylpropyl)ether,  
11 polyglycoldiepoxides, E-caprolactone triol, copolymers of styrene, butyl rubber,  
12 neoprene, polysiloxanes, carboxyl terminated poly n-butylacrylates, maleic anhydride  
13 terminated rubbers, epoxy functionalized rubbers, fluoridized rubbers, and hydroxylated  
14 or carboxylated EPDM rubbers.

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1 36. The electronic package of claim 18 wherein said filler material comprises  
2 substantially spherical or spheroidal particles, each particle having a diameter of less  
3 than about 41 microns.

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1 41. A method of making an encapsulant composition, the method comprising the  
2 steps of:

3 providing a first quantity of resin material;

4 adding to said first quantity of resin material a second quantity of flexibilizing  
5 agent by homogenizing said flexibilizing agent in said first quantity of resin material by  
6 reacting said resin material and said flexibilizing agent together at a temperature of  
7 greater than about 100 degrees Celsius;

8 adding to said first quantity of resin material a third quantity of filler material;  
9 and

10 blending said resin material.

Rule 126 44<sup>43</sup>. A composition according to claim 1, in which said flexibilizer comprises a  
2 thermoplastic material containing a thermoplastic oligomer backbone.

45<sup>44</sup>. A method according to claim 41, in which said flexibilizing agent comprises  
2 about 1 percent to about 5 percent by weight of said composition.